

Appl. No. : 09/923,515
Filed : August 7, 2001

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended): A non-cleaving antisense oligonucleotide 12 to 30 nucleobases in length, wherein said oligonucleotide is targeted to nucleotides 174 to 203 of (SEQ ID NO:3), ~~has is~~ 100% complementarity complementary to SEQ ID NO: 3, and comprises at least one modification selected from the group consisting of a modified internucleoside linkage, a modified sugar moiety, and a modified nucleobase.
- 2.-4. (Canceled)
5. (Previously Presented): The oligonucleotide of claim 1 wherein the modified internucleoside linkage is a phosphorothioate linkage.
6. (Canceled)
7. (Previously Presented): The oligonucleotide of claim 1 wherein the modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.
8. (Canceled)
9. (Previously Presented): The oligonucleotide of claim 1 wherein the modified nucleobase is a 5-methylcytosine.
10. (Previously Presented): The oligonucleotide of claim 1 which is a chimeric oligonucleotide.
11. (Canceled)
12. (Previously Presented): A composition comprising the oligonucleotide of claim 1 and a pharmaceutically acceptable carrier or diluent.
- 13.-14. (Canceled)
15. (Previously Presented): A method of inhibiting the expression of human apolipoprotein (a) in cells or tissues comprising contacting cells or tissues *in vitro* with the oligonucleotide of claim 1 so that expression of human apolipoprotein (a) is inhibited.
- 16.-40. (Canceled)

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41. (Previously Presented): An antisense oligonucleotide 12 to 30 nucleobases in length, wherein said oligonucleotide comprises at least an 8-nucleobase portion of the nucleobase sequence of SEQ ID NO: 7 and ~~has~~ is 100% complementarity complementary to a nucleic acid molecule encoding human apolipoprotein(a) (SEQ ID NO: 3).

42. (Previously Presented): The antisense oligonucleotide of claim 41, wherein said oligonucleotide is 20 nucleobases in length.

43. (Previously Presented): The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises the nucleobase sequence GGCAGGTCCTTCCTGTGACA (SEQ ID NO: 7).

44. (Previously Presented): The antisense oligonucleotide of claim 41, wherein said oligonucleotide is a chimeric oligonucleotide.

45. (Previously Presented): The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises at least one modified internucleoside linkage.

46. (Previously Presented): The antisense oligonucleotide of claim 45, wherein the modified internucleoside linkage is a phosphorothioate linkage.

47. (Previously Presented): The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises at least one modified sugar moiety.

48. (Previously Presented): The antisense oligonucleotide of claim 47, wherein said modified sugar moiety is a 2'-O-methoxyethyl sugar moiety.

49. (Previously Presented): The antisense oligonucleotide of claim 41, wherein said oligonucleotide comprises at least one modified nucleobase.

50. (Previously Presented): The antisense oligonucleotide of claim 49, wherein said modified nucleobase is a 5-methylcytidine.

51. (Previously Presented): The antisense oligonucleotide of claim 41, wherein said antisense oligonucleotide consists of the nucleobase sequence GGCAGGTCCTTCCTGTGACA (SEQ ID NO: 7).

52. (Previously Presented): The antisense oligonucleotide of claim 44, wherein said chimeric oligonucleotide comprises a gap segment of linked 2'-deoxynucleotides which is flanked on each side by at least one 2'-O-methoxyethyl nucleotide.

53. (Previously Presented): The antisense oligonucleotide of claim 52, wherein said

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gap segment is ten 2'-deoxynucleotides in length.

54. (Previously Presented): A composition comprising the antisense oligonucleotide of claim 41 and a pharmaceutically acceptable carrier or diluent.

55. (Previously Presented): The antisense oligonucleotide of claim 41, having at least 12 linked nucleobases of SEQ ID NO: 7.

56. (Previously Presented): The oligonucleotide of claim 1, wherein said oligonucleotide is targeted to nucleotides 174 to 193 of SEQ ID NO: 3.

57. (Previously Presented): The oligonucleotide of claim 10, wherein said oligonucleotide comprises a gap segment of linked 2'-deoxynucleotides which is flanked on each side by at least one 2'-O-methoxyethyl nucleotide.

58. (Previously Presented): The oligonucleotide of claim 57, wherein said gap segment is ten 2'-deoxynucleotides in length.